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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,881	04/09/2004	Kwang-yong Lee	1572.1261	9266
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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER RUSTEMEYER, BRETT J	
			ART UNIT 2426	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/820,881

**Applicant(s)**

LEE, KWANG-YONG

**Examiner**

BRETT RUSTEMEYER

**Art Unit**

2426

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03/19/2009 (Applicant's Response).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office action is in response to an AMENDMENT entered March 19<sup>th</sup>, 2009 for the patent application, 10/820,881, filed on April 9<sup>th</sup>, 2004.
2. The Office action of December 23<sup>rd</sup>, 2008 is fully incorporated into this Final Office action by reference.

#### *Status of Claims*

3. Claims 1-30 are pending.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (*See MPEP Ch. 2141*)

- a. Determining the scope and contents of the prior art;
- b. Ascertaining the differences between the prior art and the claims in issue;
- c. Resolving the level of ordinary skill in the pertinent art; and
- d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

5. Claims 1-10, 13-21, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent, "6,804,300 B1", to Hoshino et al., hereinafter "Hoshino", in view of United States Patent Application, "2004/0061804 A1", to Favrat et al., hereinafter "Favrat", further in

view of United States Patent Application, “2002/0057893 A1”, invented by Wood et al., hereinafter “Wood”.

\* Examiner's Note (EN): It appears that the combined teaching of Hoshino in view of Favrat, further in view of Wood, as a whole, renders the character of the invention unpatentable as applied with specific sections identified as follows. ¶ 12 applies.

**Regarding claims 1, 3, and 20,**

Hoshino discloses of an audiovisual rendering apparatus for use with a notebook personal computer (PC), which is capable of receiving, recording, and reproducing broadcast television signals (*Hoshino*, [Col. 2, L24-L29]). According to one embodiment, the audiovisual rendering apparatus is a digital video box (DVB), which is connected through an adaptor interface and a PCMCIA card to the notebook PC (*Hoshino*, FIG. 1, [Col. 10, L2-L10]). The DVB includes a main board which comprises a television tuner, a video encoder/decoder, an audio codec, and a plurality of audio and video signal I/O connections (*Hoshino*, [Col. 10, L11-L24]). The television tuner receives a television broadcast radio wave input from the television antenna terminal, performs a channel selection and demodulation in accordance with control instructions, outputs a television video signal to the video A/D converter, and outputs a television audio signal to an audio processor (*Hoshino*, FIG. 4, [Col. 11, L56-L62]). The video A/D converter converts an input video signal to a digital signal which is output to the buffer circuit (*Hoshino*, [Col. 11, L64-L66]). Similarly, the audio processor separates an audio signal output from the television tuner into television audio signals (L)/(R) which are input to an audio A/D-D/A converter (*Hoshino*, [Col. 12, L4-L6]). The audio A/D-D/A converter converts an input audio signal to a

digital signal which is output to the buffer circuit (*Hoshino*, [Col. 11, L9-L11]). The resulting television and audio signals are sent through the PCMCIA to the personal computer for further processing and display (*Hoshino*, [Col. 13, L61-L68]). In the alternative form, the resulting television and audio signals are sent through radio communication units (e.g., Bluetooth, IR), bus connection means (e.g., IEEE1394), or connection units (e.g., SCSI, USB) - (*Hoshino*, [Col. 23, L36-L43]).

Thus, Hoshino reads on:

*“a TV signal receiving module, the TV signal receiving module comprising:*

*a tuner receiving an analog signal and separating the analog signal into a video signal and an audio signal;*

*a video decoder converting the video signal of the analog signal into a digital video stream;*

*an audio decoder converting the audio signal into a digital audio stream; and*

*a network connecting part (Inherent processing feature of PCMCIA, Bluetooth, IR, IEEE1394, SCSI, or USB) converting a format of the second data stream for the portable computer”.*

Hoshino is silent on:

*“a tuner ... receiving a digital signal and converting the digital signal into a first data stream, wherein the first data stream comprises an MPEG-2 transport stream”.*

However, in analogous art related to problems associated with television signal receivers, Favrat provides evidence regarding the display and recording of broadcast television signals received in a variety of standards and formats (*Favrat*, Abstract). In particular, Favrat discloses

a technique of applying an appropriate sampling frequency at an analog-to-digital converter (ADC) and appropriate signal processing functions at a DSP circuit enabling a channel filter to handle television signals in any format (analog or digital) and in any standard (NTSC, PAL, or ATSC) – (*Favrat*, [0024]). According to one embodiment, an input RF signal is a digital television signal (e.g., ATSC-VSB), and the DSP applies various filter functions to the digital television signals (*Favrat*, [0032]). “The output signals from the channel filter are coupled to a bank of demodulators for generating into the appropriate video and audio baseband signals. Digital demodulator operates to decode the incoming digital television signal. Typically, digital television signals are modulated in a VSB, QAM, or COFDM scheme. Digital demodulator generates an MPEG data stream (EN: MPEG-2 transport stream in the case of ATSC-VSB) as output signals, thereby providing compatibility with other existing television components” (*Favrat*, [0037]). Lastly, Favrat discloses the TV receiver is an integrated circuit where the tuner, channel filter, and demodulators are all integrated onto the same piece of integrated circuit (*Favrat*, FIG. 2, [0038]).

Since the television tuner of Hoshino performs television signal reception, channel selection, and demodulation (*Hoshino*, [Col. 11, L56-L61]), it would have been obvious to one ordinarily skilled in the art, at the time of the invention, to apply the technique of receiving, filtering, processing, and demodulating a digital television signal as disclosed by Favrat to improve the functionality of the television tuner of Hoshino for the predictable result of enabling the reception of signals transmitted in a variety of television standards and formats.

Therefore, the combined teaching of Hoshino and Favrat, as a whole, reads on:

*“a tuner ... receiving a digital signal and converting the digital signal into a first data stream, wherein the first data stream comprises an MPEG-2 transport stream”.*

While Hoshino discloses the television signal and audio signal sent to the PCMCIA card and personal computer for MPEG-2 compression by the video compression IC (*Hoshino*, [Col. 13, L61-L66]) and the audio encoder (*Hoshino*, [Col. 13, L46-L52]), respectively, Hoshino is silent on:

*“an encoding engine encoding the digital video and audio streams into a second data stream, wherein the second data stream comprises an MPEG-2 program stream and the encoding engine is an MPEG (motion picture experts group) – 2 encoder”.*

However, in an analogous art related to problems associated with digital recording and playback, Wood provides evidence regarding the signal processing of broadcast data. In particular, the reference teaches of a digital VCR comprising: a tuner operable to receive a selected channel of a NTSC broadcast (*Wood*, FIG. 2, [0020]-[0021]); an NTSC decoder operable to digitize the selected video signal (*Wood*, [0021]); a codec operable to digitize the selected audio signal(s) (*Wood*, [0025]); and an MPEG-2 encoder subsystem to encode the digitized audio and video signals into an MPEG-2 program stream (*Wood*, [0022], [0074]).

Thus, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to apply the technique of digitizing and encoding the audiovisual contents prior to external distribution as disclosed by Wood, to improve processing capabilities of the digital video box of Hoshino, for the predictable result of providing a broadcast reception device which does not rely upon external processing, thereby accommodating a greater number of external devices.

It follows that the combined teaching of Hoshino and Wood, as a whole, reads on:

*“an encoding engine encoding the digital video and audio streams into a second data stream, wherein the second data stream comprises an MPEG-2 program stream and the encoding engine is an MPEG (motion picture experts group) – 2 encoder”.*

**Regarding claim 2**, the combined teaching of Hoshino, Favrat, and Wood reads on *the TV signal receiving module as recited in claim 1, wherein the TV signal receiving module is connected to a portable computer through a USB connector or a USB external connection terminal (Hoshino, [Col. 23, L36-L43])*.

**Regarding claims 4 and 5,**

While the modified DVB, as disclosed by the combined teaching of Hoshino, Favrat, and Wood, as a whole, provides the resulting television and audio signals to the computer via an USB connection, their combined teaching fails to disclose the claimed network connecting part as described in claims 4 and 5.

However, Official Notice is taken that both the concept and advantage of including *a USB hub interface comprising one or more controllers for transmitting data one or more respective data rates through a USB connection to a PC* in a broadcast reception device (e.g., DVB) was notoriously well known and expected in the art, and therefore would have been obvious to incorporate in the combined teaching of Hoshino, Favrat, and Wood for the benefit of further improving processing capabilities of the modified digital video box to render a plurality of USB protocols in order to accommodate a greater number of external devices.



**Regarding claim 6**, the combined teaching of Hoshino, Favrat, and Wood, reads on *a TV signal receiving module as recited in claim 1, wherein the audio and video D/A convert the video signal and the audio signal into a CVBS (composite video burst sync) signal (Hoshino, FIG.1, [Col. 11, L66] - [Col. 12, L3] - Element 14,) and a 2nd IF (intermediate frequency) signal (Hoshino, FIG. 1, [Col. 12, L4-L6] - Element 65), respectively.*

The combined teaching of Hoshino, Favrat, and Wood, as a whole, fail to disclose that the tuner comprises the audio processor and video D/A converter for processing their respective signals.

However, the Examiner contests that the act of including the audio processor and D/A converter, for processing audio and video signals, within a tuner device, would have been an obvious design choice requiring only routine skill in the art, at the time of the invention, for the benefit of reducing the number of leads on a circuit board, thereby resulting in less EMI. It has been held that forming one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art (*Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)).

**Regarding claim 7**, the modified teaching of Hoshino, Favrat, and Wood reads on *the TV signal receiving module as recited in claim 6, further comprising:*

*an ADC (analog/digital converter) – (Hoshino, FIG. 4: Element 66), wherein the audio decoder converts the 2nd IF signal (i.e., television audio signals (L) and (R)) received from the*

*tuner into the digital audio stream and transmits the digital audio stream to the encoding engine through the ADC {(Hoshino, [Col. 12, L4-L6]) – (Wood, [0025]-[0026])}.*

**Regarding claim 8**, the modified teaching of Hoshino, Favrat, and Wood, as a whole fail to disclose *the video decoder, the audio decoder, the ADC, the encoding engine, the network connecting part are integrated circuits or chips.*

However, Examiner contests that the act of implementing the claimed components as integrated circuits within a tuner device would have been an obvious design choice requiring only routine skill in the art, at the time of the invention, for the benefit of utilizing advanced manufacturing processes, thereby resulting in reduced costs and increased performance with respect to discrete components. It has been held that forming one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art (*Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)).

**Regarding claim 9**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on:

*a memory storing the digital video and audio streams of a picture to be displayed on a display part of the portable computer (Hoshino, [Col. 11, L64] - [Col. 12, L11]; EN: FIG. 4 - Element 61: Buffer Circuit).*

**Regarding claim 10**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module is connected to the portable computer without being inserted into a slot of a main board (Hoshino, [Col. 13, L61-L68], [Col. 23, L36-L43]; EN: See any of the*

external connections (PCMCIA, Bluetooth, IR, IEEE1394, SCSI, or USB) through which the resulting television and audio signals are sent to the computer).

**Regarding claim 13**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, fail to disclose that *the TV signal receiving module is smaller than a battery*.

However, the Examiner contests that the act of altering the size of the tuning module would have been an obvious design choice to one of ordinary skill in the art, at the time of the invention. For instance, the mere act of designing the size of the tuning module, such that the tuning module is smaller than a standard 12V automobile battery would provide the additional benefit increased space for the user. A change in size is generally recognized as being within the level of ordinary skill in the art (*In re Rose*, 105 USPQ 237 (CCPA 1995)).

**Regarding claim 14**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 1, wherein the portable computer further comprises a USB port (Hoshino, [Col. 14, L46-L52]) and a battery (Inherent feature of a notebook personal computer), and the TV signal receiving module further comprises:*

*a connector (e.g., male USB adaptor for connecting to the USB port of the portable computer) directly connected to the USB port of the portable computer (Hoshino, [Col. 24, L36-L44]); and*

*a power input terminal (Hoshino, FIG. 4: Element 19) supplying electric power to the tuner, the video decoder, the encoding engine, and the network connecting part (Hoshino, [Col. 11, L10-L19]).*

While Hoshino discloses that information may be transmitted between the digital video box and the notebook personal computer, (*Hoshino*, [Col. 24, L36-L44]), the combined teaching of Hoshino, Favrat, and Wood, as a whole, fails to disclose the detailed inter-working of this relationship.

However, Official Notice is taken that both the concept and advantage of providing *a USB to USB cable interface for transmitting data between a PC and an external device* (such as the modified digital video box of Hoshino and Wood) was notoriously well known and expected in the art, and therefore would have been obvious to incorporate in the combined teaching of Hoshino, Favrat, and Wood for the benefit of providing a flexible connection mechanism for transferring data between a notebook personal computer and an external device (e.g., modified DVB).

Thus, the modified teaching of Hoshino and Wood, as a whole reads on:

*an external connection terminal* (i.e., male USB connector to modified digital video box) *indirectly connected to the USB port through a cable*

While Hoshino inherently discloses that the notebook personal computer contains one or more USB ports (*Hoshino*, [Col. 24, L36-L44]), the exact location is unknown based upon the combined teaching of Hoshino, Favrat, and Wood, as a whole.

However, Examiner contests that the act of changing the location of the USB port would have been an obvious design choice requiring only routine skill in the art, at the time of the invention, for the added benefit of increased the aesthetics and ease of use. It has been held that rearranging parts of an – invention involves only routine skill in the art (*In re Japikse*, 86 USPQ 184).

Therefore, the further modified teaching of Hoshino, Favrat, and Wood, as a whole reads on:

*the USB port of the portable computer that is disposed in a bottom of the portable computer and adjacent to a connector to which the battery is connected.*

**Regarding claim 15**, the further modified teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 14, wherein the TV signal receiving module further comprises:*

*an S-video input terminal (Hoshino, FIG. 1: Element 11);*

*two stereo terminals for the audio signal (Hoshino, FIG. 1: Elements 15-18);*

*a video input terminal (Hoshino, FIG. 1: Elements 12), and*

*a TV signal receiving antenna connected to the tuner, wherein the video decoder is connected to the S-video input terminal and the video input terminal (Hoshino, FIG. 1: Element 10, [Col. 11, L56-L66], [Col. 13, L61-L66]).*

**Regarding claim 16**, the further modified teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 14, wherein the connector (e.g., male USB adaptor for connecting to the USB port of the portable computer) is used as a connection terminal to mount (i.e., connect via a USB cable) the TV signal receiving module to the portable computer* (Please refer to the remarks and citations as stated by the Examiner in response to claim 14).

**Regarding claim 17**, the further modified teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 14, wherein, in the portable computer, a TV module connection terminal (e.g., USB port of the portable computer) corresponding to the connector of the TV signal receiving module (e.g., male USB adaptor for connecting to the USB port of the portable computer) is separated from and is adjacent to a battery terminal corresponding to a connector of the battery* (Please refer to the remarks and citations as stated by the Examiner in response to claim 14).

**Regarding claim 18**, the further modified teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 14, wherein pins of the connector (e.g., male USB adaptor for connecting to the USB port of the portable computer) are partly connected to the USB port of the portable computer (e.g., USB data pins) and partly connected to a power pin (e.g., USB power pins) of the portable computer to supply the electric power through the input terminal* (Please refer to the remarks and citations as stated by the Examiner in response to claim 14).

**Regarding claim 19**, the further modified teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 14, wherein the external connection terminal (i.e., male USB connector to modified digital video box) is used when the TV signal receiving module is connected to the USB port of the portable computer through the cable, allowing (i.e., not inhibiting) the portable computer to receive the electric power from the battery (Inherent feature of a notebook personal computer) or from a commercial AC power*

*source (e.g., a power outlet), where the TV signal receiving module receives the electric power from the commercial AC power source (e.g., the same power outlet) through the power input terminal (Hoshino, FIG. 4: Element 19, [Col. 11, L10-L19]).*

**Regarding claim 21**, he combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on:

*wherein the tuner is a ATSC/NTSC compatible tuner {(Favrat, [0032]) - (Wood, FIG. 2, [0020]-[0021]; EN: See the tuner of Wood operable to receive a selected channel of a NTSC broadcast)}.*

**Regarding claim 25**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on the respective limitations of claims 1 and 3.

**Regarding claim 26**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on the respective limitations of claim 3.

**Regarding claim 27**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the method of the TV signal receiving module as recited in claim 25, wherein because the TV signal receiving module is connected to the portable computer, not through a PCI interface, but through the USB port, further comprising:*

*recognizing (e.g., initiating) the TV signal receiving module while the portable computer operates (Hoshino, [Col. 12, L29-L41]).*

**Regarding claim 28**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on the respective limitations of claims 1 and 9.

**Regarding claim 29**, the further modified teaching of Hoshino, Favrat, and Wood, as a whole, reads on the respective limitations of claim 17.

**Regarding claim 30**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on *the TV signal receiving module as recited in claim 28, wherein the TV signal receiving module is connected to the portable computer through the TV module connection terminal to transmit the TV signal to the portable computer (Hoshino, [Col. 12, L29-L41])*.

6. Claims 11, 12, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino in view Favrat further in view of Wood further in view of U.S. Patent “5,058,045” to Hsi K. Ma, hereinafter “Ma”.

\* Examiner's Note (EN): It appears that the combined teaching of Hoshino in view of Favrat, further in view of Wood, further in view of Ma, as a whole, renders the character of the invention unpatentable as applied with specific sections identified as follows. ¶ 12 applies.

**Regarding claim 22**, the combined teaching of Hoshino, Favrat, and Wood, as a whole, reads on the respective limitations of claim 1.

While the combined teaching of Hoshino, Favrat, and Wood, as a whole, discloses an expansion card (e.g., PCMCIA) is used to connect the modified digital video box to a notebook



personal computer, their combined teaching fails to disclose that the TV signal receiving module (i.e., modified digital video box) has *an external shape that corresponds to a shape of a battery to be mounted to the battery mounting place of the portable computer.*

However, in an analogous art related to problems associated with connecting expansion cards and batteries to notebook computers, Ma provides evidence regarding the interchangeability of expansion card and battery sets. In particular, the reference teaches a notebook computer may utilize a plurality of receiving chambers, such that battery sets or expansion cards may be universally inserted into the receiving chambers to either extend power supply duration or strengthen the operational function of the computer (*Ma*, Abstract, FIG. 3, [Col. 2, L10-L16]).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention to apply the technique of utilizing the universal cassette-like structure in a notebook personal computer disclosed in Ma, to improve the functionality of notebook personal computer disclosed by the combined teaching of Hoshino, Favrat, and Wood, as a whole, for the predictable result of extending the power supply duration of the notebook personal computer when the modified digital video box it is not connected the modified, without sacrifice to the operability of the two devices when connected.

Thus, the combined teaching of Hoshino, Favrat, Wood, and Ma as a whole, reads on:

*an external shape that corresponds to a shape of a battery to be mounted to the battery mounting place of the portable computer.*

**Regarding claim 23**, the combined teaching of Hoshino, Favrat, Wood, and Ma as a whole, reads on the respective limitations of claim 1.

**Regarding claim 24**, the combined teaching of Hoshino, Favrat, Wood, and Ma as a whole, reads on the respective limitations of claim 14.

**Regarding claims 11 and 12**, the combined teaching of Hoshino, Favrat, Wood, and Ma as a whole, reads on the respective limitations of claim 22.

#### ***Response to Arguments***

7. Applicant's arguments and remarks documented in Applicant's submission pertaining to the 35 U.S.C. § 112 – Second Paragraph rejections of claims 4 and 5 have been considered and are considered fully persuasive. The 35 U.S.C. § 112 – Second Paragraph rejection of claims 4 and 5 are herein removed.

8. Applicant's arguments and remarks documented in the Applicant's submission pertaining to the 35 U.S.C. § 103 (a) rejections of independent claims 1, 22, 25, and 28, and dependent claims thereof, have been fully considered, but are moot in view of a new ground(s) of rejection.

#### ***Examination Considerations***

9. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure." *In re Morris*, 127 F.3d 1048, 1054-1055, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). "Limitations appearing in the specification but not recited in the claim are not read into

the claim.” *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969) (MPEP p 2100-8, C 2: L 45-48; p 2100-9, C 1: L 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

10. Examiner’s Notes are provided with the cited references to prior art to assist the Applicant(s) to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art which may be applied in future Office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner’s Notes are not prior art, but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

11. Unless otherwise annotated, Examiner’s statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

12. Examiner’s Opinion: ¶ 9-11 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

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***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Claims 1-30 are rejected.

***Contact***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brett Rustemeyer whose telephone number is (571) 270-1849. The examiner can normally be reached on Monday - Friday 9:00 a.m.-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hirl can be reached on (571) 272-3685. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/BR/

Examiner – Art Unit 2426

July 2<sup>nd</sup>, 2009

/Joseph P. Hirl/

Supervisory Patent Examiner, Art Unit 2426

July 3, 2009